UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,716	10/04/2000	Joel Soderberg	13768.169	7348

22913   7590   12/16/2003

WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER &
SEELEY)
60 EAST SOUTH TEMPLE
1000 EAGLE GATE TOWER
SALT LAKE CITY, UT 84111

EXAMINER
NGUYEN, QUANG N

ART UNIT	PAPER NUMBER
2141	5

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No. 09/679,716	**Applicant(s)** SODERBERG ET AL.
Office Action Summary	**Examiner** Quang N. Nguyen	**Art Unit** 2141

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *04 October 2000*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-33* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-33* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *04 October 2000* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

   a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4*.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

Detail Action

1.   This Office Action is in response to the Application S/N 09/679,716 filed on

10/04/2000. Claims 1-33 are presented for examination.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claim 1, 8, 10, 14, 17-18, 23-25 and 30 are rejected under 35 U.S.C. 102(b) as being anticipate by Mighdoll et al. (US 5,918,013), herein after referred as Mighdoll.

4.   As to claim 1, Mighdoll teaches a client system (WebTV client 1), a front-end

server (WebTV server 5), and one or more back-end servers (remote servers 4), all

interconnected with a communication link (as illustrated in Fig. 1), wherein the client

system periodically accesses content stored on the one or more back-end servers

through the front-end server, the method comprising:

(a WebTV server 5) receiving a request for content from the client system (a WebTV client 1, step 901 of Fig. 9);

directing the request to a particular back-end server (the WebTV server 5 accesses a remote server 4 based on the address provided in the document requested from the WebTV client 1, step 903 of Fig. 9);

receiving from the particular back-end server, a redirect response identifying one or more other back-end servers where the content is stored (the remote server 4 responds with a redirect to the WebTV server 5, step 904 of Fig. 9);

automatically and without client system intervention, redirecting the request to a redirect back-end server, the redirect back-end server being one of the one or more other back-end servers identified in the redirect response (the WebTV server 5 accesses the requested document according to the redirect access, step 906 of Fig. 9);

receiving the requested content from the redirect back-end server; and sending the requested content to the client system (the requested document is retrieved and downloaded to the WebTV client 1 by the WebTV server 5, step 907 of Fig. 9) (Mighdoll, C12: L52-67 and C13: L1-30).

5.   As to claim 8, Mighdoll teaches the method of claim 1, wherein the direct response identifies a single back-end server where the content is stored (the remote server 4 responds with a redirect to the WebTV server 5, step 904 of Fig. 9).

6.   As to claim 10, Mighdoll teaches the method of claim 1, further comprising the acts of receiving the requested content from the redirect back-end server and sending the requested content to the client system (the requested document is retrieved and downloaded to the WebTV client 1 by the WebTV server 5) (Mighdoll, C13: L25-30).

7.   Claims 14 and 17 are corresponding claims of claims 1 and 8; therefore, they are rejected under the same rationale.

8.   Claims 18 and 23-24 are corresponding method claims of front-end server claims 1, 8 and 10; therefore, they are rejected under the same rationale.

9.   Claims 25 and 30 are corresponding computer program product claims of front-end server claims 1 and 8; therefore, they are rejected under the same rationale.

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11.   Claims 2-6, 9, 11-13, 15-16, 19-21, 26-28 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mighdoll, in view of Fielding et al.

(Hypertext   Transfer   Protocol,   Network   Working   Group,

"http://www.ietf.org/rfc/rfc2616.txt", June 1999), herein after referred as Fielding.

12.   As to claims 2-3, Mighdoll teaches the method of claim 1, wherein the WebTV

server 5 functions as a proxy (a front-end server) on behalf on the WebTV client 1

(Mighdoll, C11: L44-45), but does not explicitly teach the act of adding a front-end

indicator to a hypertext transfer protocol User Agent header of the request to indicate

that the front-end server is making the request on behalf of the client system.

In the related art, Fielding teaches the Hypertext Transfer Protocol (HTTP) is an

application-level protocol for distributed, collaborative, hypermedia information systems,

which has been in use by the World Wide Web global information, wherein the HTTP

request-header fields allow the client to pass additional information about the request,

and about the client itself, to the server (such as From, Host, Max-Forwards, Proxy-

Authorization, Range, Referrer, User-Agent, etc.) (Fielding, pages 37-38, 137 and 145).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to combine the teachings of Mighdoll and Fielding to

include the act of adding a front-end indicator to a hypertext transfer protocol User

Agent header of the request to indicate that the front-end server is making the request

on behalf of the client system since such methods were conventionally employed in the

art to allow the client to pass additional information about the request and the client

itself to the server by using the request-header fields.

13.   As to claim 4, Mighdoll-Fielding teaches the method of claim 2, wherein the direct

response identifies a list of back-end servers where the content is stored (Fielding,

pages 38-39 and 60-63).

14.   As to claim 5, Mighdoll-Fielding teaches the method of claim 4, wherein the list of

back-end servers is identified in a hypertext transfer protocol 305 Use Proxy response

from the particular back-end server (Fielding, pages 38-39 and 60-63).

15.   As to claim 6, Mighdoll-Fielding teaches the method of claim 4, further

comprising the acts of requesting authentication credentials from the client system

(identified in a hypertext transfer protocol 401 Unauthorized or 407 Proxy Authentication

Required, Fielding, pages 38-39 and 66) and receiving proper authentication credentials

from the client system (Mighdoll, C14: L19-31 and 54-57).

16.   As to claim 9, Mighdoll-Fielding teaches the method of claim 8, wherein the

single back-end server is identified in either a hypertext transfer protocol 301 Moved

Permanently or 302 Moved Temporarily response from the particular server (Fielding,

pages 38-39 and 60-63).

17.   Claims 11-13 are corresponding back-end server claims of front-end server

claims 1-5; therefore, they are rejected under the same rationale.

18.   Claims 15-16 are corresponding claims of claims 4 and 6; therefore, they are rejected under the same rationale.

19.   Claims 19-21 are corresponding method claims of front-end server claims 2, 4 and 6; therefore, they are rejected under the same rationale.

20.   Claims 26-28 are corresponding computer program product claims of front-end server claims 2, 4 and 6; therefore, they are rejected under the same rationale.

21.   Claims 31-33 are corresponding computer program product claims of back-end server claims 11-13; therefore, they are rejected under the same rationale.

22.   Claims 7, 22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mighdoll-Fielding, in view of Smith et al. (US 6,311,216), herein after referred as Smith.

23.   As to claim 7, Mighdoll-Fielding teaches the method of claim 6, further comprising the act of receiving an authentication token that is associated with the authentication credentials (Mighdoll, C14: L19-31 and 54-57) but does not explicitly teach the act of using the authentication token as a key for hash operation to identify the redirect back-end server from the list of back-end servers identified in the redirect response.

In the related art, Smith teaches using the authentication token associated with the authentication credentials (which is included in the URL HTTP request) as a key for a hash operation to identify the most likely proxy server to contain the URL data object in its local cache by computing the hash value for the requested URL, the hash value for each of the proxy servers and the two hash values are then combined to give a value for each proxy server that is unique for the URL sought and the proxy server is chosen by taking the highest "score" or hash value (Smith, C10: L1-31 and C12: L19-33).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Mighdoll-Fielding and Smith to include the act of using the authentication token as a key for hash operation to identify the redirect back-end server from the list of back-end servers identified in the redirect response since such methods of using hashing algorithms were conventionally employed in the art to allow the redirection/proxy/front-end server to select the best or most likely back-end server that contains the requested content from a list of available back-end servers to serve the client without making expensive query-response transactions or routing the URL data object request through multiple back-end servers.

24.   Claim 22 is a corresponding method claim of front-end server claim 7; therefore, it is rejected under the same rationale.

25.   Claim 29 is a corresponding computer program product claim of front-end server claim 7; therefore, it is rejected under the same rationale.

26.   Further references of interest are cited on Form PTO-892, which is an attachment to this office action.
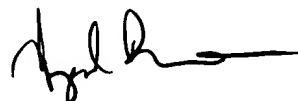

27.   A shortened statutory period for reply to this action is set to expire THREE (3) months from the mailing date of this communication. See 37 CFR 1.134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (703) 305-8190.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (703) 305-4003. The fax phone number for the organization is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Quang N. Nguyen

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER